A systematic review of evidence relating to clinical supervision for nurses, midwives and allied health professionals

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A systematic review of evidence relating to clinical supervision for nurses, midwives and allied health professionals.

Running head

Clinical supervision for NMAHPs: a systematic review

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Conflict of interest statement

No conflict of interest has been declared by the authors (Alex Pollock, Pauline Campbell, Ruth Deery, Mick Fleming, Jean Rankin, Graham Sloan and Helen Cheyne).

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All authors have agreed on the final version and meet at least one of the following criteria (recommended by the ICMJE*):

1) substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data;

2) drafting the article or revising it critically for important intellectual content.

* http://www.icmje.org/recommendations/

ABSTRACT:

Aim

To systematically review evidence relating to clinical supervision for nurses, midwives and allied health professionals.

Background

Since 1902 statutory supervision has been a requirement for UK midwives, but this is due to change. Evidence relating to clinical supervision for nurses and allied health professions could inform a new model of clinical supervision for midwives.

Design

A systematic review with a contingent design, comprising a broad map of research relating to clinical supervision, and two focused syntheses answering specific review questions.

Data Sources

Electronic databases were searched from 2005 until September 2015, limited to English-language peer-reviewed publications.

Review Methods

Systematic reviews evaluating the effectiveness of clinical supervision were included in Synthesis 1. Primary research studies including a description of a clinical supervision intervention were included in Synthesis 2. Quality of reviews were judged using a risk of bias tool, and review results summarised in tables. Data describing the key components of clinical supervision interventions were extracted from studies included in Synthesis 2, categorised using a reporting framework and a narrative account provided.

Results

Ten reviews were included in Synthesis 1; these demonstrated an absence of convincing empirical evidence and lack of agreement over the nature of clinical supervision. Nineteen primary studies were included in Synthesis 2; these highlighted a lack of consistency, and large variations between delivered interventions.

Conclusion

Despite insufficient evidence to directly inform the selection and implementation of a framework, the limited available evidence can inform the design of a new model of clinical supervision for UK-based midwives.

SUMMARY STATEMENT

Why is this research or review needed?

- UK midwives currently receive statutory supervision but changes will soon separate its investigatory and developmental functions. The Nursing and Midwifery Council (NMC) will be responsible for regulation, leaving the opportunity to develop a non-regulatory framework for supervision which may be more effective in meeting the needs of practicing midwives.
- Existing models of clinical supervision currently used for nurses or allied health professionals may inform a framework of non-regulatory supervision for midwives.
- There is a lack of consensus over the nature of clinical supervision and how it can be optimally facilitated.

What are the key findings?

- An overview of reviews which explore effectiveness of clinical supervision demonstrates consensus that there is no convincing evidence of effectiveness, and a lack of agreement over the nature of clinical supervision.
- A synthesis of descriptions of clinical supervision within primary research studies demonstrates that there is lack of consistency and large variations within what is delivered as supervision.
- There is insufficient evidence to directly inform the selection of a specific model, or way of delivering clinical supervision, to promote optimal outcomes for health practitioners and their clients.

How should the findings be used to influence policy/practice/research/education?

- These findings could be used to inform the development and implementation of a non-regulatory framework for clinical supervision in midwifery.
- Despite insufficient evidence to enable direct selection of a new framework from existing models, available information about intervention components could be used to inform the design of a new model of clinical supervision for UK midwives which should then be rigorously tested.
- Further systematic exploration of research evidence exploring perceived barriers and facilitators to clinical supervision should be carried out to assist decisions relating to future supervision of midwives in the UK.

KEY WORDS

Clinical supervision, midwifery, nursing models, systematic reviews and meta-analyses

MAIN TEXT

INTRODUCTION

Clinical supervision is widely considered to be an integral part of good professional practice for healthcare practitioners (Bowers and Bottiglien 2007, Brunero and Lamont 2012, Buus et al. 2013, Gonge and Buus 2015, NHS 2013). While there is no universally accepted definition of the term clinical supervision, there is broad agreement over its purpose and objectives. For the purposes of this paper, clinical supervision is considered to be the facilitation of support and learning for healthcare practitioners enabling safe, competent practice and the provision of support to individual professionals who may be working in stressful situations. This reflects definitions from established texts:

"a formal process of professional support and learning which enables individual practitioners to develop knowledge and competence, assume responsibility for their own practice and enhance consumer protection and safety in complex situations" (DoH 1993)

"*clinical supervision provides a route to developing and maintaining emotionally healthier individuals in an emotionally healthier workforce culture. Effective systems of clinical supervision can bring benefits not only to practitioners but also to the organisation and its clients*" (Bond and Holland 1998).

Internationally there are many frameworks, policies and procedures relating to the concept of clinical supervision, placing responsibility on individual professionals, managers, organisations or health care systems. Reported impacts of clinical supervision comprise benefits at all these different levels, although evidence relating to improved quality of care provided by professionals to individual clients or patients is rare (Bradshaw et al. 2007) and studies have been unable to demonstrate direct and signficant benefits to patients (Watkins 2011; White & Winstanley 2010). Yet there is widespread consensus over the merits of clinical supervision, despite a lack of clarity over what clinical supervision is, and little agreement about what constitutes a "good" model of clinical supervision (Chilvers and Ramsey 2009, Evans and Marcroft 2015).

Within this paper, evidence relating to the effectiveness of clinical supervision interventions is systematically synthesised, and descriptions of clinical supervision interventions are derived from primary research evidence.

Background

Uniquely, within the UK there is a legal requirement for all midwives to receive regular supervision, but no similar statutory requirement for nurses or allied health professions. Participation in statutory supervision (i.e. supervision for which there is a legal requirement) has been an essential requirement for midwives in the UK since 1902 in order to maintain their registration to practice. Statutory supervision purports to provide a mechanism for

both regulation of practice (including registration of midwives and investigation in cases of suggested mal-practice) and for support and guidance (including a review of the midwife's practice and an assessment of educational needs). However it has been argued by some that there is a blurring of boundaries within the statutory supervision model and that regulation and support for a midwife cannot exist in the same model (Deery and Corby 1996, Stapleton et al. 1998).

The stated purpose of statutory supervision of midwives is to "*protect women and babies by actively promoting a safe standard of midwifery practice*" (NHS 2015). Recently, following a number of enquiries into adverse events, a report from The King's Fund (an independent charity working to improve health and health care in England, which aims to shape policy and practice through research and analysis: http://www.kingsfund.org.uk/) recommended the separation of the processes of supervision and regulation for midwives (Baird et al. 2015) with relevant changes to the law anticipated to be in place by early 2017 (NMC 2015).

The removal of the statutory requirement for supervision of UK midwives represents a significant change for the profession. The UK's Nursing and Midwifery Council will continue to have responsibility for the regulatory aspects of supervision, but not aspects relating to professional and personal support (i.e. not clinical supervision). The current statutory supervision model has traditionally been considered to be essential for the protection of the public (i.e. mothers and babies) and its removal implies a threat to public safety. There is therefore a need to adopt a suitable alternative to ensure safety and optimal outcomes for mothers and babies. Consequently the four Chief Nursing Officers in the UK are now seeking to implement a model of clinical supervision (NMC 2015), and the Scottish Government brought together lead midwives and researchers to begin exploration of an alternative model or framework.

However, there are significant challenges to the identification, development and implementation of a robust model of clinical supervision. There is a lack of consensus over the nature of clinical supervision and its facilitation. This creates barriers to the development and implementation of an alternative model of supervision which is designed to meet the professional support and developmental needs of midwives and to have a positive impact on clinical outcomes for women, babies, midwives and maternity services. Non-regulatory models of clinical supervision currently used for nurses and allied health professionals (AHPs), and by midwives outwith the UK, may potentially inform the development of a replacement to statutory supervision and evidence relating to these need to be considered to determine the optimal framework for clinical supervision for midwives in the UK.

THE REVIEW

Aim

The aim was to inform the identification, development and implementation of a framework for clinical supervision in midwifery by exploring evidence relating to clinical supervision for nurses, midwives and AHPs. Identified evidence was synthesised in order to answer the following research questions:

1. What is the evidence of effectiveness of clinical supervision interventions for nurses, midwives or AHPs?

2. What are the key components of clinical supervision interventions delivered within primary research studies to nurses, midwives and AHPs?

The protocol for this review has been published in the PROSPERO database (Pollock et al. 2015).

Design

A systematic review using a contingent design was carried out. Contingent designs comprise a cycle of research syntheses, conducted to answer defined research questions, and assimilate evidence according to its relevance to a research question, rather than grouping studies according to whether they have a qualitative or quantitative research design (Sandelowski et al. 2006). The process of starting with a broad review question or aim can enable subsequent efficient syntheses focussed on narrower review questions (Gough et al. 2012). The planned contingent design therefore, comprised two stages: (1) mapping the evidence and (2) synthesising evidence relevant to the two focussed research questions. This is illustrated in Figure 1.

The framework developed by Arksey and O'Malley (2005) provided a structured approach to both stages of the planned systematic review. This framework comprises 5 stages: clarifying and linking the purpose and research question (stage 1); balancing feasibility with breadth and comprehensiveness of the mapping process (stage 2); using an iterative team approach to selecting studies (stage three) and extracting data (stage four); incorporating a numerical summary and qualitative thematic analysis, reporting results, and considering the implications of study findings to policy, practice, or research (stage five) (Arksey and O'Malley 2005, Levac et al. 2010). To ensure adherence to the 'iterative team approach' the review authors, who comprised experts in clinical supervision, midwifery and research methods, held regular team meetings throughout the review process. This iterative approach ensured that feasibility and timely completion of this review could be balanced with breadth and comprehensiveness.

Search methods

The electronic databases searched were: MEDLINE, CINAHL, EMBASE, AMED (Allied and Complementary Medicine Database), CDSR (Cochrane Database of Systematic Reviews), DARE (Database of Abstracts of Reviews of Effectiveness), CENTRAL (Cochrane Central

Register of Controlled Trials), HTA (Health Technology Assessment Database), from 2005 until September 2015, limited to English language papers in peer-reviewed publications. Comprehensive search strategies were developed and adapted for use across databases, combining MESH and free text terms for keywords relating to profession (e.g. “nurse”, “midwife”, “allied health professional”) and supervision (e.g. “clinical supervision” OR “professional supervision”) (see Table S1 for sample search string for CINAHL database). Boolean operators were used in order to maximise the penetration of terms searched, and appropriate “wild cards” used to account for plurals, variations in databases and spelling.

Search outcome

Selection criteria for inclusion in the broad map of research evidence were purposefully wide. To be eligible for inclusion studies had to be specifically focussed on clinical supervision, according to the pre-defined working definition (see Introduction). To ensure that included clinical supervision interventions were relevant to the UK, only studies based in Europe, North America or Australasia were eligible for inclusion. Any primary or secondary research studies, regardless of design, were eligible for inclusion, but letters, commentaries, expert opinion and non-peer reviewed studies were excluded.

Studies were excluded if they were exclusively focused on the supervisee only (for example, studies focussing only on resilience building), the supervisor role (for example, studies focussed specifically on processes or actions of the supervision), or education (that is, clinical supervision provided to those completing educational courses or programmes).

An audit trail of the search outcome was maintained, with details of included and excluded studies summarised within tables.

Quality appraisal

The quality of reviews included within synthesis 1 were assessed using the ROBIS tool (Whiting et al. 2016), and each review rated as being at low, high or unclear risk of bias, based on the responses to the ROBIS questions. The quality of primary research studies included within synthesis 2 were not systematically appraised, as this was not contingent with the aim of this synthesis, which was focused on providing a description of interventions (rather than synthesising or interpreting outcome data), however a judgement of the comprehensiveness of the description of the intervention was applied using a pre-planned ‘traffic-light’ system. The following definitions were used for this categorisation:

- ‘Green’ - comprehensive description of clinical supervision intervention, with few missing data. Details ought to be sufficient to facilitate replication.
- ‘Amber’ - Details of some areas of the clinical supervision intervention well reported, but absent for some areas. Details would not be sufficient to facilitate replication, but could be integrated into an intervention with similar characteristics.

- ‘Red’ - Few details provided and/or inadequate description of the clinical supervision intervention. Details would not be sufficient to facilitate replication of the intervention.

Judgment of comprehensiveness of reporting was done by one researcher, and checked by a second researcher.

Data abstraction

Methods of selection of studies

One member of the review team ran the search strategy and excluded any obviously irrelevant titles. Two review authors independently reviewed the abstracts of all remaining records, applying selection criteria to identify eligible studies. Full papers were obtained for all studies considered potentially relevant by at least one reviewer, and were independently assessed by two reviewers. Any disagreements between reviewers were resolved through discussion. In accordance with the Arksey and O’Malley (2005) framework, discussion meetings were held to discuss the process of study selection following completion of abstract review, but prior to full paper review, to provide opportunities for discussion and review of the inclusion criteria (Arksey and O'Malley 2005). Any agreed modifications to inclusion criteria were fully documented, with reasons provided, to ensure transparency in this process.

Selection of studies for inclusion in synthesis 1: For inclusion within synthesis 1 studies had to be specifically designed to evaluate the effectiveness of the clinical supervision intervention. Outcomes of interest were pre-stated as (but not limited to): measures of cost, numbers of complaints, number of staff sickness days, measure of staff retention, and scales to assess perceived acceptability and usefulness. Selection of studies for inclusion within synthesis 1 was carried out through discussion between review authors.

Selection of studies for inclusion in synthesis 2: For synthesis 2, which aimed to synthesise descriptions of clinical supervision interventions, the comprehensiveness of the description of the clinical supervision intervention was judged using the previously described ‘traffic light’ system. Only studies judged to be ‘green’ or ‘amber’ were taken forward into synthesis 2.

Data extraction

Synthesis 1: Following consensus to focus on relevant reviews, recommended methods for overviews of reviews (or ‘umbrella reviews’) were adopted. These included ensuring that methods were in line with well-recognised high quality standards for systematic reviews of primary studies (Hartling et al. 2012), and including the essential elements for overviews of reviews including non-quantitative data (Aromataris et al. 2015). The characteristics of the 10 included reviews were systematically extracted, including aims, inclusion criteria, date of

search, outcomes assessed, details of included studies, data synthesised, any effectiveness data and review conclusion. Data were extracted by one of the review authors, using a data collection form specifically designed for this study.

Synthesis 2: The characteristics of the 19 included studies were systematically extracted, including country of study, study aims, study design and description of the clinical supervision. Data were extracted by one review author, using a data collection form specifically designed for this study.

Synthesis

Synthesis 1: Extracted data and ROBIS assessments for each review were combined within summary tables. Had the included reviews presented meta-analyses exploring the effectiveness of clinical supervision on any of our pre-stated outcomes of interest, we planned to summarise these pooled data within tables using recommended methods (Hartling et al. 2012, Smith et al. 2011).

Synthesis 2: Descriptions of key components of the clinical supervision intervention were systematically tabulated for each study using items from the TIDieR checklist (Hoffmann et al. 2014), to categorise descriptions under the following headings:

i) BRIEF NAME of model of clinical supervision and WHY it was selected.
ii) WHAT materials and procedures were used?
iii) WHO provided clinical supervision?
iv) HOW was clinical supervision provided?
v) WHERE was clinical supervision provided?
vi) WHEN and HOW MUCH clinical supervision was provided?

Information on tailoring, modifications and how well the clinical supervision was implemented was considered and relevant descriptions incorporated in the above categories. Differences and similarities between studies within each of these categories were explored.

RESULTS

Results of search

The results of the search are detailed in Figure 2. Eighty-six papers, which reported 47 primary studies (60 papers) and 26 reviews were included in the broad map of evidence.

Synthesis 1

Iterative discussion in accordance with the planned design (Arksey and O'Malley 2005) led to consensus that it was pragmatic and efficient to first consider whether the 26 reviews included in the broad map answered the research question within proposed synthesis 1. Exploration of these reviews led to exclusion of 16 reviews (see Table S2 for reasons for

exclusion, and references for excluded reviews), leaving 10 reviews to be included within Synthesis 1 (Brunero 2008, Butterworth et al. 2008, Buus and Gonge 2009, Dawson et al. 2013, Dilworth et al. 2013, Ducat and Kumar 2015, Fitzpatrick et al. 2012, Francke and de Graaff 2012, Kleiser and Cox 2008, Pearce et al. 2013). Characteristics of these reviews are detailed in Table S3. Only 5 of these 10 included were judged to be a low risk of bias (using the ROBIS tool) and relevant to our review question (Buus and Gonge 2009, Dawson et al. 2013, Dilworth et al. 2013, Ducat and Kumar 2015, Francke and de Graaff 2012). Four of these included qualitative primary research studies in addition to quantitative studies (Buus and Gonge 2009, Dawson et al. 2013, Dilworth et al. 2013, Ducat and Kumar 2015, Francke and de Graaff 2012), while one included quantitative studies only (Francke and de Graaff 2012). None of the reviews pooled any data within meta-analyses; one review presented quantitative results data from individual studies (Francke and de Graaff 2012). All 5 reviews provided narrative descriptions of the results of the included primary studies.

Systematic exploration of the evidence from *all* reviews of clinical supervision (including those judged to be at high risk of bias) demonstrates clear consensus that there is lack of agreement over what clinical supervision is or how it should be performed and that there is no convincing empirical evidence to support clinical supervision for nurses, midwives and AHPs (NMAHPs). The reviews were also in general agreement that while there is some evidence of limited quality, which does suggest benefits associated with clinical supervision, this is conflicting, and the evidence is low quality and poorly described.

Synthesis 2

The 47 primary research studies were all considered to potentially include relevant descriptions of clinical supervision interventions. Application of the 'traffic light' system to rate the comprehensiveness of the description of the clinical supervision intervention rated 3/47 as 'green', 16/47 as 'amber' and 28/47 as 'red'. Table S4 summarises the study design, judgement of quality / comprehensiveness of description of clinical supervision and Table S5 describes the characteristics and lists citations for the 48 primary studies.

Thus 19 primary studies were judged to contain some details relating to the clinical supervision intervention. These included 4 randomised controlled trials (Bambling et al. 2006, Gonge and Buus 2015, Heaven et al. 2006, White and Winstanley 2010), one cohort study (Livni et al. 2012), 3 mixed methods studies (Dawber 2013, O'Connell et al. 2013, Turner and Hill 2011), 2 qualitative studies ((Brink et al. 2012, Cross et al. 2010), 5 survey/questionnaire-based studies (Bailey et al. 2014, Brunero and Lamont 2012, Buus et al. 2013, Evans and Marcroft 2015, Girling et al. 2009), 3 case studies or reports (Bowers and Bottiglien 2007, Chilvers and Ramsey 2009, Cross et al. 2012) and one action research study (Bergdahl et al. 2011). The numbers of people participating in the studies was generally low (ranging from 2-87 supervisees) and were often poorly reported, with many studies describing the number of groups receiving supervision or the number of supervisors rather than number of supervisees.

Narrative description of key components

i) BRIEF NAME of model of clinical supervision and WHY it was selected.

There were a number of different named models of supervision cited with several studies referring to more than one named model. The most frequently cited model of supervision was Proctor's model (Proctor 1987, 2000), with 8/19 studies specifically referring to Proctor's Model (Bowers and Bottiglien 2007, Brunero and Lamont 2012, Cross et al. 2010, Dawber 2013, Gonge and Buus 2015, Evans and Marcroft 2015, Turner and Hill 2011, White and Winstanley 2010). Models of reflective practice were cited by 3 studies (Chilvers and Ramsey 2009, Dawber 2013, White and Winstanley 2010), while other studies described "Working Alliance" (Bambling et al. 2006), "Collegial group supervision" (Brink et al. 2012), "Supervisory Alliance" (Livni et al. 2012), models of "Hawkins and Shohet" (Buus et al. 2013) and "Bandura's social cognitive learning" model (Heaven et al. 2006). Only 4/19 studies (Bergdahl et al. 2011, Cross et al. 2012, Girling et al. 2009, O'Connell et al. 2013) did not state a named model of clinical supervision or cite a supporting reference when describing the intervention. However, in the papers where specifically named models were cited, it was generally unclear how these models impacted on the practical application of clinical supervision, and why this particular model had been selected.

ii) WHAT materials and procedures were used?

Few studies provided a comprehensive description of the content of the sessions and how these were structured. Two of the studies specifically referred to the establishment of "ground rules" at the start of the clinical supervision process (Bowers and Bottiglien 2007, Turner and Hill 2011). Some studies either implicitly or explicitly described a process in which a "problem" or "issue" was raised and then explored by the supervisee (Brunero and Lamont 2012, Cross et al. 2010, Cross et al. 2012, O'Connell et al. 2013). In general the descriptions provided in the study lacked clarity around the content and structure of the sessions.

In the majority of the studies (9/19) participation in clinical supervision was voluntary. In one study it was stated that participation was not mandatory, but that staff were "*strongly advised to attend*" (Chilvers and Ramsey 2009), while in another it was mandatory for participants in one setting (ward), and voluntary in another (Buus et al. 2013). In two studies participation required consent for ethical reasons associated with the study design (Heaven et al. 2006, White and Winstanley 2010), and information was unclear or not stated in three studies.

There was very little information provided in the studies in relation to whether (or how) clinical supervision sessions were documented. Two studies stated that records or notes were kept by the supervisors (Cross et al. 2010, Livni et al. 2012), one mentioned minutes of

meetings (Bowers and Bottiglien 2007), and two used standard forms to record the session (Chilvers and Ramsey 2009, Turner and Hill 2011).

iii) WHO PROVIDED clinical supervision?

Clinical supervision was facilitated by a range of different people, with very varied levels of experience in clinical supervision. Three main groups of people who provided or facilitated supervision were identified; these included (1) clinical supervision facilitator who had completed specialist training (Cross et al. 2010, Cross et al. 2012, Dawber 2013, Girling et al. 2009, O'Connell et al. 2013), (2) clinical NMAHPs who had attended some training (Bambling et al. 2006, Chilvers and Ramsey 2009, Evans and Marcroft 2015, Livni et al. 2012, White and Winstanley 2010), and (3) members of a group in which the lead person, or facilitator, rotated between members (Bailey et al. 2014, Heaven et al. 2006, Bowers and Bottiglien 2007). Other people involved in facilitating clinical supervision were researchers (Buus et al. 2013, Gonge and Buus 2015) and line managers (Turner and Hill 2011). In one study clinical supervision was delivered jointly by two co-facilitators (Brunero and Lamont 2012).

The training provided to clinical NMAHPs comprised a 2-day university course tailored to the supervisor's needs (Chilvers and Ramsey 2009) and a 4-day "residential, intensive, experiential" course combining practical exercises with theory-based seminars (White and Winstanley 2010). Another study provided one training session and a manual, but all supervisors in this study had to have previously had at least 2 years' experience of providing clinical supervision (Bambling et al. 2006). Three studies provided supervisors with a written manual, or handbook, detailing the role and functions of clinical supervision (Brunero and Lamont 2012, Buus et al. 2013, Gonge and Buus 2015).

iv) HOW was clinical supervision provided?

All clinical supervision interventions were delivered face-to-face. The majority of studies focussed on group supervision (12/19) (Bailey et al. 2014, Bergdahl et al. 2011, Bowers and Bottiglien 2007, Brink et al. 2012, Brunero and Lamont 2012, Buus et al. 2013, Chilvers and Ramsey 2009, Cross et al. 2010, Dawber 2013, Gonge and Buus 2015, O'Connell et al. 2013, White and Winstanley 2010). This was generally led by a facilitator, but occasionally is peer-led (Cross et al. 2010). Five studies delivered individual (one-to-one) supervision (Bambling et al. 2006, Cross et al. 2012, Girling et al. 2009, Heaven et al. 2006, Turner and Hill 2011), while 2 delivered a mixture of either group or individual (Evans and Marcroft 2015, Livni et al. 2012). Evans and Marcroft (2015) specifically planned to enable a range of different modes of delivery, stating that "*A menu of 6 options was provided to enable supervision to be adaptable and tailored to individual staff & service needs*" (Evans and Marcroft 2015). In Livni et al. 2012 supervisors and supervisees were randomly allocated to either individual or group supervision conditions (Livni et al. 2012).

v) WHERE was clinical supervision provided?

The included studies were mainly carried out in Australia (8 studies: (Bailey et al. 2014, Bambling et al. 2006, Brunero and Lamont 2012, Cross et al. 2010, Cross et al. 2012, Dawber 2013, O'Connell et al. 2013, White and Winstanley 2010) and the United Kingdom (7 studies: (Bowers and Bottiglien 2007, Chilvers and Ramsey 2009, Evans and Marcroft 2015, Girling et al. 2009, Heaven et al. 2006, Livni et al. 2012, Turner and Hill 2011) with 2 studies also carried out in each of Sweden (Bergdahl et al. 2011, Brink et al. 2012) and Denmark (Buus et al. 2013, Gonge and Buus 2015).

Clinical supervision was provided in a wide variety of different settings including hospital, community and emergency care settings. Six of the studies explored clinical supervision either within a mental health care setting (Bambling et al. 2006, Buus et al. 2013, Gonge and Buus 2015, White and Winstanley 2010) or to supervisees who were involved in the delivery of counselling services (Bailey et al. 2014, Livni et al. 2012). Clinical supervision was often provided to nurses (including registered nurses and midwives, health-care assistants, nurse managers) working within a range of settings including community / home-based services (Bergdahl et al. 2011, Bowers and Bottiglien 2007, Cross et al. 2012, Heaven et al. 2006), general or mixed hospital settings (Brunero and Lamont 2012, Dawber 2013, O'Connell et al. 2013), or specialist care settings (Chilvers and Ramsey 2009, Cross et al. 2010). Clinical supervision was also provided to clinical staff (including nurses and AHPs) within specific settings or locations (Evans and Marcroft 2015, Girling et al. 2009) and to ambulance nurses and technicians (Brink et al. 2012).

vi) WHEN and HOW MUCH clinical supervision was provided?

There was little evidence available regarding the frequency of participation in clinical supervision. The frequency of clinical supervision can be measured as the number of sessions conducted or, more specifically, as the number of sessions an individual nurse has attended (Gonge and Buus 2015). The frequency and duration of clinical supervision delivered within group or one to one sessions is summarized in Table 1. Group sessions were delivered between once a week and every 8 weeks, and varied between 45 minutes and 2 hours in length. One to one sessions varied from a 1 hour session once a fortnight, to a 1 hour session once every 3 months. One study reported a total of 12 hours supervision delivered as four ½ day sessions over a four week period (Heaven et al. 2006); in this study clinical supervision was delivered specifically with the aim of supporting transfer of communication skills training into clinical practice, potentially accounting for the greater duration of delivery. Another study reported clinical supervision which occurred after each client (Bambling et al. 2006), but this was delivered in the context of a randomised controlled trial, with the aim of supporting adherence to a specific treatment protocol.

DISCUSSION

This systematic review has mapped research evidence relating to clinical supervision, and synthesised evidence in order to address two clearly focussed research questions. In general the evidence relating to clinical supervision is of poor quality, confounded by absence of definitions and descriptions of clinical supervision. Despite the widespread acceptance that clinical supervision is beneficial to individuals, clients and organisations, there remains no convincing empirical evidence to support clinical supervision for nurses, midwives or allied health professionals. Exploration of the few available descriptions of clinical supervision within the primary research evidence highlights inconsistencies, and large variations between facilitated interventions. There is insufficient evidence to inform the selection of a specific model, or way of facilitating clinical supervision, to promote optimal outcomes for health practitioners and their clients.

Implications for midwifery and clinical supervision in the UK

The midwifery profession is now in a unique position to be able to devise a model of clinical supervision that meets the needs of midwives in the UK. Although the findings of this review provide insufficient evidence to directly inform the selection of a clinical supervision model for midwives, information about intervention components relating to typology, processes and the role of the facilitator may help inform the design of a model of clinical supervision which can then be rigorously tested. Named models of supervision may inform development, but care must be taken to consider how such models impact on the practical application of clinical supervision. As there are a range of ways of delivering clinical supervision, and no evidence of superiority of any specific method, incorporating a number of alternatives into a model may be advantageous in enabling tailoring to different settings and individual practitioners. Specification of the components of a new model and development of a handbook or manual may provide a practical way of ensuring clarity, and may be a useful supplement to any training which is provided to those who will facilitate clinical supervision sessions. It will be essential to be clear about whether participation in clinical supervision sessions will be voluntary or mandatory, both as a supervisor or as a supervisee. Development of contracts between supervisors and supervisees, standard methods of record keeping, and minimum criteria for attendance of individual midwives may all be important components.

Given that the new model will not have a regulatory function this presents the opportunity for a focus on bringing, and reflecting on, issues from work in a safe and supportive, but challenging context. To provide optimal care to mothers and babies, midwives require adequate support and guidance; consequently there is a case that this new model should be predicated on relationship based care, ensuring that midwives do not suffer from the stresses that have become common within midwifery and enabling them to take care of themselves as well as mothers and babies. Effective clinical supervision is likely to require continuous learning and development for supervisors and supervisees, who will need to be committed to self-assessing their skills and competencies through reflection and review of

their performance. Appropriate training and knowledge development, for both supervisors and supervisees, will arguably be essential to ensuring successful implementation of a new supervision process. In order to successfully develop and implement a national framework of clinical supervision for UK midwives each individual component of this complex intervention will need to be considered, with consideration of the context in which it is to implemented and with collaboration from all relevant stakeholders.

Strengths and limitations of the review

The lack of consistent terminology relating to clinical supervision led to significant challenges associated with identification of relevant studies, which may have led to failure to identify and include some potentially relevant papers. However the large number of review papers identified, and the clear consensus in their reported findings, does increase confidence that there were no key papers missing from this review. The conclusions reached within this systematic review are limited by the poor quality of evidence identified relating to clinical supervision. Within synthesis 1 a recognised tool was used to assess the quality of evidence of the included reviews, and a strength of this approach was the focus on the reviews which were judged to be at low risk of bias. In contrast, within synthesis 2 no assessment of the quality of the included primary studies was made, as quality was not considered relevant to the research question, which specifically focused on the description of the intervention, rather than on the study design or results. Despite this justification, the absence of quality assessment may have resulted in inclusion of data from studies which had study designs at high risk of bias. Throughout this review**,** strategies were implemented to reduce the introduction of biases, including the use of two independent reviewers at all key stages of the study selection and data extraction and transparent reporting of judgements and decision making. The review authors did make a number of iterative decisions, potentially introducing bias into the review, but attempts were made to systematically document all iterative decision-making to minimise the limitations associate with this approach.

CONCLUSION

This systematic review of evidence relating to clinical supervision was undertaken to inform the development and implementation of a framework for clinical supervision in midwifery. While the review highlights the lack of high quality evidence relating to clinical supervision, and concludes that this is insufficient to directly inform the selection and implementation of a new framework, the limited available evidence could be used to inform the design of a new model of clinical supervision for UK-based midwives. The absence of empirical evidence relating to the effectiveness of clinical supervision interventions, and variations and inconsistencies in descriptions, definitions and what is implemented in clinical practice, provide no clear way forward in the identification of a replacement for statutory supervision

for UK-based midwives. Yet clinical supervision is widely delivered and there are a considerable number of peer-reviewed papers in which there are reports of the facilitation of clinical supervision for nurses, midwives and AHPs. The available evidence provides a range of options which could be considered during the development of a new model or framework for clinical supervision in midwifery in the UK. To further inform this development and implementation, systematic exploration of additional data, such as evidence relating to the perceived barriers and facilitators to effective supervision and reports of current practice for other health professionals, is recommended.

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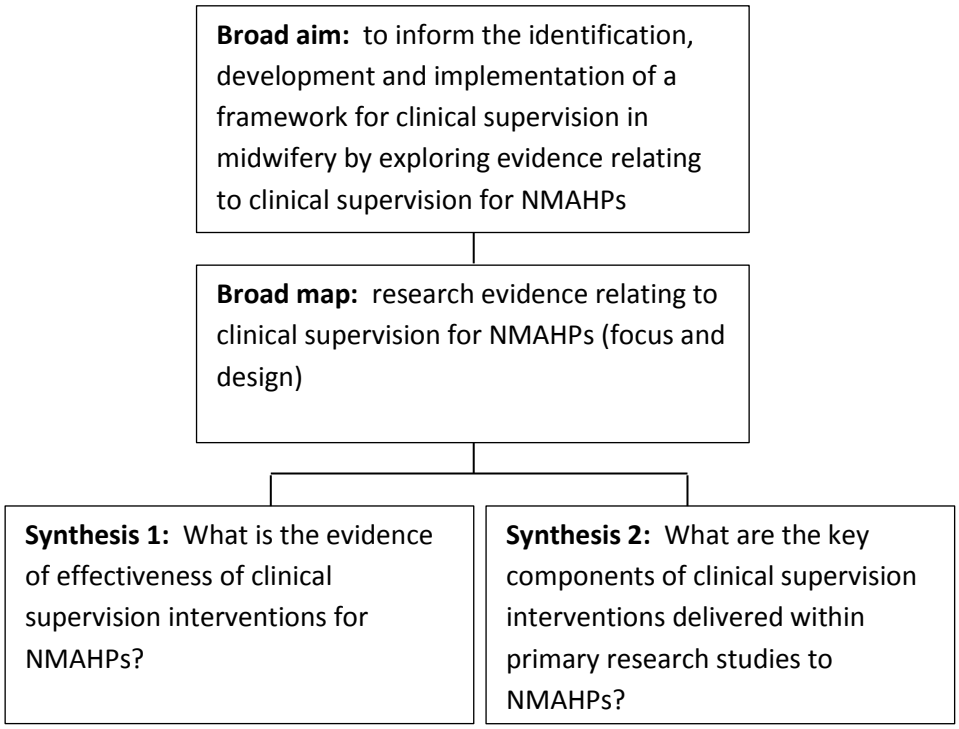
FIGURES & TABLES

SUPPLEMENTARY TABLES

FIGURE 1: Systematic map of planned review design



NMAHPs – Nurses, midwives and allied health professionals

FIGURE 2: Results of search and identification and inclusion of studies within 2 syntheses

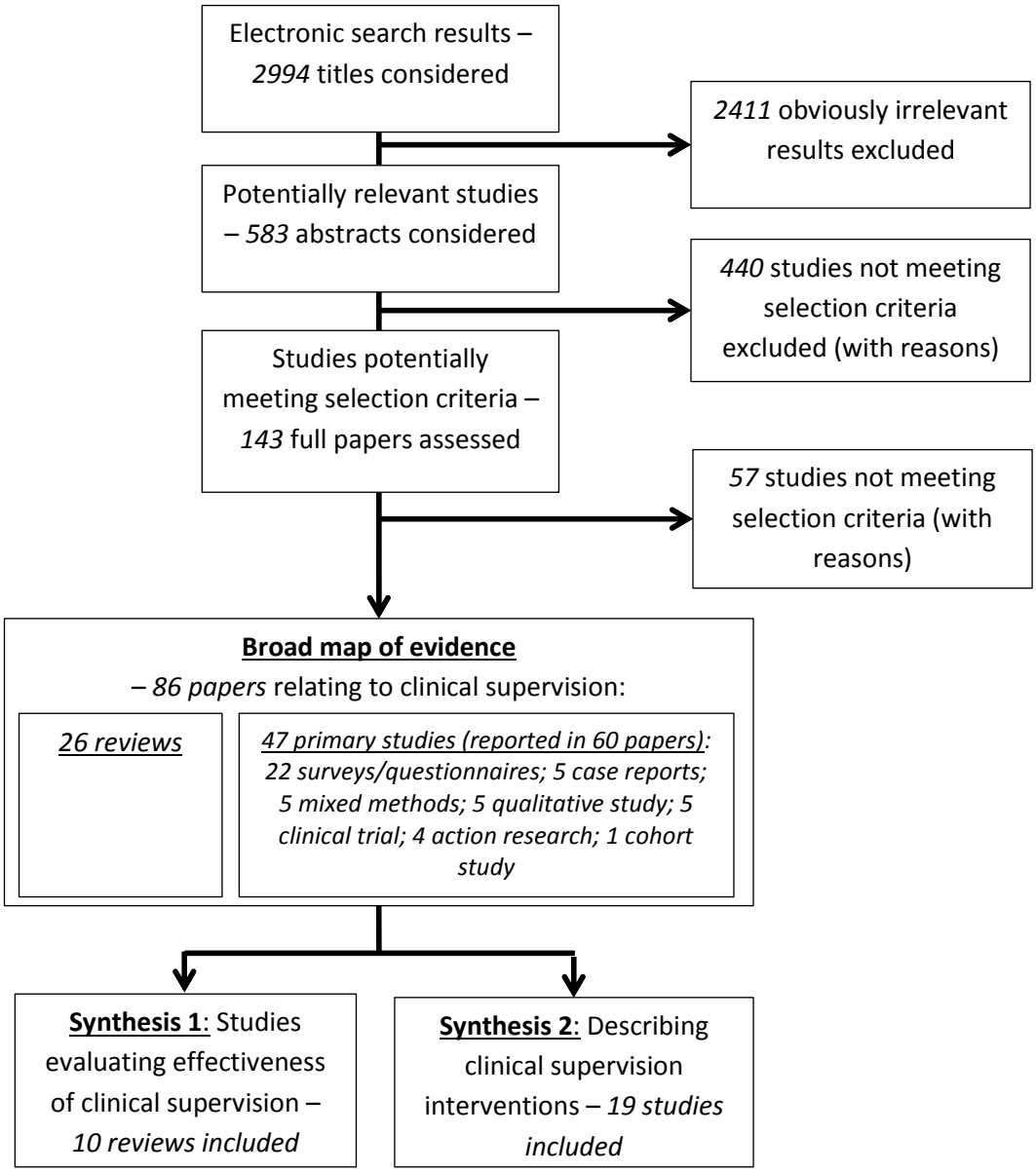


TABLE 1: WHEN and HOW MUCH clinical supervision

Study	Frequency of clinical supervision	Duration of session
Group clinical supervision		
(Bailey et al. 2014)	"group would meet one evening per month"	90 minutes
(Bergdahl et al. 2011)	13 sessions with approximately 5 weeks between the sessions	2 hours
(Bowers and Bottiglien 2007)	Monthly	2 hours
(Brink et al. 2012)	Not stated	Not stated
(Brunero and Lamont 2012)	Fortnightly to monthly "dependent on the clinical area"	1 hour
(Buus et al. 2013, Gonge and Buus 2015)	Three sessions: introduction (3 hours) followed 6 weeks later by two follow-up sessions (lasting one hour each)	Varied (manual described an intervention with three sessions: introductory session lasting three hours and, at about six weeks interval, two follow-up sessions lasting one hour each)
(Chilvers and Ramsey 2009)	Every 8 weeks	Six sessions; length of session not stated
(Cross et al. 2010)	Weekly	15 sessions, 1 hour length over 6 months
(Dawber 2013)	Model 1 = alternated between fortnightly and monthly sessions. Model 2 = between fortnightly and monthly, based on perceived need. Model 3 = fortnightly.	Model 1 = 45 minutes. Model 2 = 1 hour. Model 3 = 1 hour.
(O'Connell et al. 2013)	Weekly	1 hour
(White and Winstanley 2010)	Monthly	45-60 minutes
One-to-one clinical supervision		
(Bambling et al. 2006)	After each client (treated within a randomised controlled trial)	Not stated
(Cross et al. 2012)	Fortnightly	1 hour sessions, delivered over 12 months
(Girling et al. 2009)	Every 3 months	1 hour
(Heaven et al. 2006)	Four ½ day sessions	Total of 12 hours, delivered over 4 weeks
(Turner and Hill 2011)	Usually monthly	Not stated

Table S1 – sample search string

S1. clinical supervision
S2. professional supervision
S3. S1 OR S2
S4. allied health professional*
S5. nurs*
S6. midwife*
S7. midwives
S8. arts therapist*
S9. biomedical scientist*
S10. chiropodist*
S11. podiatrist*
S12. clinical scientist*
S13. dietician*
S14. hearing aid dispenser*
S15. occupational therapist*
S16. operating department practitioner*
S17. orthoptist*
S18. paramedic*
S19. physiotherapist*
S20. physical therapist*
S21. practitioner psychologist*
S22. prosthetist*
S23. orthotist*
S24. radiographer*
S25. social worker*
S26. speech and language therapist*
S27. speech and language pathologist*
S28. S4 OR S5 OR S6 OR S7 OR S8 OR S9 OR S10 OR S11 OR S12 OR S13 OR S14 OR S15 OR S16 OR S17 OR S18 OR S19 OR S20 OR S21 OR S22 OR S23 OR S24 OR S25 OR S26 OR S27
S29. S3 AND S28

TABLE S2: Reviews excluded from synthesis 1, and references to excluded reviews

Reason for exclusion	Number of reviews	Reviews
Did not meet criteria to be considered a 'systematic' review	12	Bland and Rossen 2005, Calvert 2014, Cleary et al. 2010, Cummins 2009, Fone 2006, Lennox et al. 2008, MacDonald and Ellis 2012, McCloughen et al. 2006, Mills et al. 2005, Ross 2013, Turner and Hill 2011, Wright 2012
Did not meet our pre-stated definition of clinical supervision	2	Duffy 2007, Sirola-Karvinen and Hrykas 2006
Judged not to be relevant to our research questions	1	Berggren et al. 2005
Search end date was before 2005	1	Sloan 2005
	Total = 16/26	

References to excluded reviews

Berggren, I., Barbosa da Silva, A., & Severinsson E. (2005) Core ethical issues of clinical nursing supervision. *Nursing and Health Sciences* **7(1),** 21-28.

Bland, A.R., & Rossen, E.K. (2005) Clinical Supervision of Nurses Working with Patients with Borderline Personality Disorder. *Issues in Mental Health Nursing* **26(5),** 507-517.

Calvert, I. (2014) Support for midwives — a model of professional supervision based on the recertification programme for midwives in New Zealand. *Women and Birth* **27(2),** 145-150.

Cleary, M., Horsfall, J., & Happell, B. (2010) Establishing clinical supervision in acute mental health inpatient units: Acknowledging the challenges. *Issues in Mental Health Nursing* **31(8),** 525-531.

Cummins, A. (2009) Clinical supervision: The way forward? A review of the literature. *Nurse Education In Practice* **9(3),** 215-220.

Duffy, A. (2007) A concept analysis of reflective practice: determining its value to nurses. *British Journal of Nursing* **16(22),** 1400-1407.

Fone, S. (2006) Effective supervision for occupational therapists: The development and implementation of an information package. *Australian Occupational Therapy Journal* **53(4),** 277-283.

Lennox, S., Skinner, J., & Foureur, M. (2008) Mentorship, preceptorship, and clinical supervision: three key processes for supporting midwives. *New Zealand College of Midwives Journal* **39**, 7-12.

MacDonald, J., & Ellis, P.M. (2012) Supervision in psychiatry: Terra incognita? *Current Opinion in Psychiatry* **25(4),** 322-326.

McCloughen, A., O'Brien, L., & Jackson, D. (2006) Positioning mentorship within Australian nursing contexts: A literature review. *Contemporary Nurse* **23(1),** 120-134.

Mills, J.E., Francis, K.L., & Bonner, A. (2005) Mentoring, clinical supervision and preceptoring: clarifying the conceptual definitions for Australian rural nurses. A review of the literature. *Rural And Remote Health* **5(3),** 410-410.

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Sloan, G. (2005) Clinical supervision: beginning the supervisory relationship. *British Journal of Nursing* **14(17),** 918-923.

Turner, J., & Hill, A. (2011) Implementing clinical supervision (part 1): a review of the literature. *Mental Health Nursing* **31(3),** 8-12.

Wright, J. (2012) Clinical supervision: a review of the evidence base. *Nursing Standard* **27(3),** 44-49.

Table S3: Characteristics of included reviews relating to clinical supervision

Review. Title.	Brunero 2008. The effectiveness of clinical supervision in nursing: an evidenced based literature review.
Stated aim	The purpose of this paper is to review selected research studies that have focused on evaluating the effectiveness of clinical supervision in nursing.
Included studies	22 studies - 4 "comparative", 3 "pre-post" evaluation studies; 15 "post-only" evaluation studies
Data presented	Description of clinical supervision (including summary of frequency etc), comparison intervention, and statement of focus of study. Outcomes relating to Normative, Formative & Restorative function were stated. It is unclear whether these data are effectiveness data. No numerical data extracted from studies (other than participant numbers).
Conclusions (quote from paper)	There is research evidence to suggest that clinical supervision provides peer support and stress relief for nurses (restorative function) as well a means of promoting professional accountability (normative function) and skill and knowledge development (formative function).
Judgment of risk of bias	HIGH
Review. Title.	Butterworth et al. 2007. Wicked spell or magic bullet? A review of clinical supervision literature 2001-2007.
Stated aim	This literature review aims to - offer an analysis of themes arising from the literature that have emerged during the last six year period; - describe any emerging trends and outcomes that are precipitated through the use of clinical supervision.
Included studies	92 studies
Data presented	Under themes of: (i) levels of engagement; (ii) the usefulness of clinical supervision as an educational and supportive device; (iii) ethical debate, personal and organisational challenges; (iv) effects on patient outcome and staffing disposition.
Conclusions (quote from paper)	Levels of engagement carry a number of confounding factors. They are likely to be determined by organisational culture, availability of time, supervisor numbers and a host of other local factors. Few significant conclusions can be drawn from the reported data but organisational culture is consistently reported as an important determinant of implementation. Clinical supervision as a supportive device has attracted more attention than any other. Most studies are self-reported, qualitative in method and suggest that clinical supervision and its processes confer benefit in many ways. It is not possible to attribute all these positive effects merely to clinical supervision. However, it is quite proper to suggest that structured opportunities to discuss case related practice, personal and educational development are vital to nurses, their practice and patient safety.
Judgment of risk of bias	HIGH

Review. Title.	Buus and Gonge 2009. Empirical studies of clinical supervision in psychiatric nursing: A systematic literature review and methodological critique.
Stated aim	The aim of the following systematic literature review was to summarize and critically evaluate all empirical studies of clinical supervision in psychiatric nursing and to identify and discuss issues that would benefit from additional research in the future.
Included studies	34 papers, reported from 25 empirical projects. These were 9 "effect" studies, 12 "survey" studies, 6 "interview" studies, 7 "case studies"
Data presented	Aim, design, methods/instruments, settings & participants, analyses, description of supervision, result, limitations.
Conclusions (quote from paper)	The reported findings from the four projects designed to measure the effect of clinical supervision did not provide convincing empirical evidence to support the assumption that clinical supervision in psychiatric nursing settings had an effect on the nurses and/or the patients in their care.
Judgment of risk of bias	LOW
Review. Title.	Dawson et al. 2013. Clinical Supervision for Allied Health Professionals: A Systematic Review.
Stated aim	A current systematic review of the evidence for clinical supervision for AHPs was conducted to answer the review questions: what is clinical supervision?, why do AHPs have clinical supervision?, and what are the processes and outcomes of clinical supervision? Due to the paucity of allied health clinical supervision literature, the review needed to consider empirical studies from other health professional groups.
Included studies	33 papers; 8 systematic reviews, 2 comparison & quasi-experimental studies; 12 cross-sectional studies; 9 interview studies
Data presented	Table summarising systematic reviews. Tables of studies - aim, setting & participants, results, limitations
Conclusions (quote from paper)	The current review identified a significant gap in clinical supervision research for AHPs. Those studies that included AHPs did so in small numbers or had inadequately developed research methods. The current review was not able to identify a common definition of clinical supervision, and many of the studies did not offer a definition of clinical supervision. There is, however, much less clarity about how clinical supervision should be provided as there are conflicting positions on the inclusion of normative and restorative functions.3,9 The form of clinical supervision varied across the studies and included 1:1, group, or peer supervision. The 1:1 and group forms were most commonly reported, however there was no evidence to suggest that one clinical supervision form was superior. The scope of clinical supervision also varied, with sessions occurring fortnightly to monthly, lasting from 45 minutes up to 2 hours; again there was no evidence for the best approach.

Judgment of risk of bias	LOW
Review. Title.	Dilworth et al. 2013. Finding a way forward: A literature review on the current debates around clinical supervision.
Stated aim	The purpose of the review was to scope the current field, identify the main debates and existing evidence around clinical supervision with a view to develop an understanding of current practices that will inform a larger project (Dixon-Woods, Cavers, et al., 2006; Mays, Pope, & Popay, 2005).
Included studies	59 studies
Data presented	Presents a "critical interpretive approach" to the clinical supervision literature.
Conclusions (quote from paper)	There are a plethora of clinical supervision models within the nursing literature but few of them are well defined (Buus and Gonge, 2009; Fowler, 1996; Sloan, White, and Coit, 2000). Proctor's model is becoming widely utilised within the nursing research. Despite its increasing popularity, there is criticism that perhaps this model is too imprecise, failing to identify interventions appropriate to each domain (Sloan et al., 2000). The lack of clarity about role and structure has led to a large body of evidence that is diffuse. As a result it lacks strength in the claims it makes for clinical supervision. All of the reviews appear to reach a similar conclusion: the evidence that clinical supervision is effective is not strong and there is a need to address methodological limitations in order to improve the strength of the evidence. Despite methodological limitations, and resistance from health professionals and organisations there is an argument for positive changes in work satisfaction, decreases stress, burnout nurses wellbeing and effective clinical supervision (Dawson, Phillips, and Leggat, 2012; Edwards et al., 2006; Hyrkäs et al., 2006; Koivu, Saarinen, and Hyrkas, 2012; Severinsson and Kamaker, 1999; Wallbank and Hatton, 2011). There is also some evidence that clinical supervision can improve patient and staff satisfaction (White and Winstanley, 2010); enhance education, expand scope of practice (Mannix et al., 2006; Moorey et al., 2009) and provide a forum for critical reflective practice (Cleary and Freeman, 2005; Cross et al., 2010; Hyrkäs et al., 2002; Kilcullen, 2007).
Judgment of risk of bias	LOW
Review. Title.	Ducat and Kumar 2015. A systematic review of professional supervision experiences and effects of allied health practitioners working in non-metropolitan health care settings
Stated aim	The aim of this comprehensive systematic review was to synthesize the current evidence base for both the experience and effects of professional supervision for allied health professionals working in non-metropolitan health settings. Specifically, the review questions were: 1. What are the experiences of professional supervision for allied health professionals working in non-metropolitan settings?

	2. What are the effects of professional supervision on allied health practitioner practice and client outcomes in non-metropolitan locations?
Included studies	5 studies included - 2 qual studies; 2 cross-sectional quant; 1 pre-post quant
Data presented	Design, participants, sample, key findings, limitations, quality appraisal
Conclusions (quote from paper)	Considering the large pool of studies retrieved for further investigation, few of these met inclusion criteria demonstrating the paucity of primary research in this area. Increased training, policies, and implementation frameworks to ensure the definition and functions of supervision are agreed upon across the allied health disciplines in non-metropolitan areas is needed. Furthermore, systematic evaluation of supervision implementation in non-metropolitan settings, investigation of the experience and effects of distance based supervision (versus face-to-face), and increased rigor in research studies investigating non-metropolitan allied health profession supervision is needed.
Judgment of risk of bias	LOW
Review. Title.	Fitzpatrick et al. 2012. Quality allied health clinical supervision policy in Australia: a literature review.
Stated aim	Not stated
Included studies	n=25
Data presented	Narrative
Conclusions (quote from paper)	By gaining an understanding of what high quality clinical supervision is and how it is best put into practice, it is anticipated that this will form the first step in developing an understandable and useful universal supervision policy for all allied health professionals.
Judgment of risk of bias	HIGH
Review. Title.	Francke and de Graaff 2012. The effects of group supervision of nurses: A systematic literature review
Stated aim	Review questions 1. What are the effects of group supervision of nurses on nurse and patient outcomes? 2. What are the characteristics of the group supervision programmes in relevant studies? 3. What are the methodological quality and characteristics of relevant studies?
Included studies	17 studies: 8 controlled studies, 9 pre-post test design studies (no RCTs)
Data presented	characteristics of group supervision (including topics discussed, process, period & duration); study quality, sample, variables/ instruments, analysis, results (narrative)
Conclusions (quote from paper)	All studies indicated that group supervision produced to a greater or lesser extent certain positive effects. However, the outcome variables varied and not all studies pointed in the same direction. For instance, some publications

	indicated that emotional exhaustion decreased in supervised nurses (e.g. Butterworth et al., 1998, 1999), whilst others did not find significant effects on burnout or emotional exhaustion at all (Berg et al., 1994; Hallberg, 1994; Paulsson et al., 1996). At the moment the nursing profession has more than two decades profound experiences with clinical group supervision for nurses. However, this systematic review provides the same overall conclusion as two reviews performed at the end of the previous century (Hyrkas et al., 1999; Williamson and Dodds, 1999), namely that the empirical evidence is still limited.
Judgment of risk of bias	LOW
Review. Title.	Kleiser and Cox 2008. The integration of clinical and managerial supervision: a critical literature review.
Stated aim	The aim of this study was to review and evaluate the existing evidence in order to establish if the collaboration of clinical and managerial supervision can be sustained effectively. If so, then the government's new appraisal system (KSF, DH 2004) may offer structure and guidance within the process. The research question, therefore, was 'Should supervision be used as a tool for monitoring competency in clinical practice?
Included studies	25 studies; 16 with SIGN level of evidence of 3 or more; 9 were 'expert opinion'
Data presented	SIGN level/grade of evidence and authors conclusions
Conclusions (quote from paper)	This review did not find any evidence to support the co-alliance of supervision and appraisal.
Judgment of risk of bias	HIGH
Review. Title.	Pearce et al. 2013. Content of clinical supervision sessions for nurses and allied health professionals: A systematic review.
Stated aim	The aim of this systematic review was to evaluate the current evidence regarding the **content** of clinical supervision for nursing and allied health professionals.
Included studies	n=20: 9 cross-sectional studies; 2 literature reviews; 9 opinion pieces
Data presented	Aim, participants & intervention, data collection, themes identified, limitations
Conclusions (quote from paper)	The findings of this systematic review demonstrated that there is scarce current evidence for what content is included in clinical supervision for health professionals. None of the published articles included in this review explicitly addressed the question of content of clinical supervision and there were methodological issues with many of the studies. This systematic review extrapolated some recurring themes related to the content of clinical supervision for the nursing, allied health and medical professions from the current literature.
Judgment of risk of bias	HIGH

TABLE S4: Study design and quality / comprehensiveness of description of clinical supervision within included studies

Type of study design	Traffic light rating of quality / comprehensiveness of description of clinical supervision Number of studies	GREEN: Comprehensive description of clinical supervision intervention, with few missing data. Details ought to be sufficient to facilitate replication.	AMBER: Details of some areas of the clinical supervision intervention well reported, but absent for some areas. Details would not be sufficient to facilitate replication, but could be integrated into an intervention with similar characteristics.	RED: Few details provided and/or inadequate description of the clinical supervision intervention. Details would not be sufficient to facilitate replication of the intervention.
Action research	4	0	1	3
Case report or study	5	0	3	2
Cohort study	1	0	1	0
Mixed methods	5	0	3	2
Qualitative study	5	0	2	3
Clinical trial	5	1	3	1
Survey/questionnaire	22	2	3	18
TOTAL	47	3	16	29

TABLE S5: Characteristics of primary studies (n=47), and references to these studies (n=60)

Study references	Country of study	Study aims.	Study design. TRAFFIC LIGHT[$]
Abbott et al. 2006*	UK	Report of development and evaluation of mandatory clinical supervision for all nursing staff at a London primary care trust.	Case report / study. RED
Alleyne and Jumaa 2007*	UK	"to identify, create and evaluate effective processes for collaborative working so that the nurses capacity for clinical decision-making could be improved"	Action research. RED
Ayres et al. 2014*	UK	To explore "the quality and effectiveness of the clinical supervision received by occupational therapists working for the West London Mental Health Trust"	Survey / questionnaire. RED
Bailey et al. 2014*	Australia	"to explore the impact of a rurally situated peer consultation group on its participants"	Survey / questionnaire. AMBER
Bambling et al. 2006*	Australia	"evaluated the impact of clinical supervision on client working alliance and symptom reduction in the brief treatment of major depression"	RCT. AMBER
Bergdahl et al. 2011*	Sweden	"action research process aimed at enhancing nurses' abilities to reflect on how to create good caring relationships with patients in advanced home care. Another aim was to examine the usefulness of an emerging theory, derived from results from a previous study. The request for this project to take place came from an advanced home care unit which had received complaints concerning patients in the palliative phase. The action performed was clinical supervision, structured around abilities that nurses need in order to create good caring relationships".	Action research. AMBER
Best et al. 2014*	Australia	"assessed the relationship between clinical supervision ratings and overall satisfaction at work, hypothesizing that workers' ratings of clinical supervision would be predictive of their overall workplace satisfaction."	Survey / questionnaire. RED
Boland et al. 2010*	Australia	"examined the methods and frequency of professional supervision in Queensland's work rehabilitation sector"	Mixed methods. RED
Bowers and Bottiglien 2007 *	UK	To examine how "the seven community staff nurses working in the teams established a monthly two-hour forum to support each other's development through accessing group clinical supervision and educational sessions. The subsequent audit measuring how participants felt the forum had affected their clinical practice is explored"	Case report / study. AMBER
Brink et al. 2012*	Sweden	"to evaluate the experience of group supervision and to explore its impact on the participants' personal and professional development"	Qualitative. AMBER
Brunero & Lamont 2012*	Australia	"To review the implementation of clinical supervision across several different nursing specialities"	Survey / questionnaire. GREEN
Buus et al., 2013 *	Denmark	"To explain the development, implementation, and adjustment of the manual for the intervention,	Survey / questionnaire.

		describe the content and structure of the final educational intervention, and reflect on six key-issues in relation to implementing the manual"	GREEN
Carney 2005*	UK	"To explore whether qualified nursing staff in the hospital's five clinical divisions were satisfied with the clinical supervision they received. Also, the survey examined whether supervision was of good quality, was suitable for different specialist environments and if it affected motivation, skills, confidence and stress levels. The survey also explored if there was a difference between D or E-grade nurses and nurses who are F grade and above regarding their perception of clinical supervision."	Survey / questionnaire. RED
Cerinus 2005*	UK	"To investigate the nature of clinical supervision"	Action research. RED
Chilvers and Ramsey 2009*	UK	To describe "the methods employed to initiate a reflective clinical supervision programme using a group model"	Case report / study. AMBER
Cookson et al. 2014*	UK	• "Determine whether the provision of clinical supervision for nurses and AHPs in mental health services meets the standards recommended". • "Identify whether the specific recommendations in the guideline are being adhered to". • "Identify differences in adherence to guideline recommendations between mental health nurses and AHPs, and between those working in community and inpatient settings"	Survey / questionnaire. RED
Cox and Araoz 2009*	UK	"to explore the experience of supervision by the therapists within the trial and to consider whether: 1) the experience of supervision differed between the therapist groups and 2) previous experience of supervision was similar or different to that within the trial"	Survey / questionnaire. RED
Cross et al. 2010*	Australia	"To implement and evaluate group clinical supervision (clinical supervision) for Associate Nurse Unit Managers (ANUMs) in a busy medical ward of a tertiary teaching hospital"	Qualitative. AMBER
Cross et al. 2012*	Australia	" report clinical supervision for two Outreach Nurses as they adapted to their new, largely autonomous role in an Australian tertiary hospital"	Case report / study. AMBER
Cutcliffe and Hrykas 2006*	USA	"to describe multidisciplinary attitudes towards/about clinical supervision"	Survey / questionnaire. RED
Davis and Burke 2012*	UK	"evaluative audit assessing the effectiveness of clinical supervision for ward managers"	Survey / questionnaire. RED
Dawber 2013*	Australia	To examined ways of measuring the effect and effectiveness of reflective practice group..	Mixed methods. AMBER
Dawson et al. 2012* Dawson et al. 2013	Australia	"Explored current clinical supervision effectiveness for allied health professionals (AHPs) at a regional health service from a supervisee perspective and identified improvements"	Survey / questionnaire. RED
Deery 2005*	UK	"To explore community midwives' views and experiences of their support needs in clinical practice, and then to identify how they would wish to receive such support. Further objectives	Action research. RED

		were to redress the imbalance identified by planning and facilitating a model of clinical supervision devised by the participating midwives."	
Edwards et al. 2006* Edwards et al. 2005	UK	"To establish the degree to which clinical supervision might influence levels of reported burnout in community mental health nurses."	Survey / questionnaire. RED
Evans and Marcroft 2015*	UK	To develop an organisation-wide clinical supervision system.	Survey / questionnaire. AMBER
Girling et al. 2009*	UK	To demonstrate success of project; to discover the effect of practice supervision on staff & on care; to audit compliance with the practice supervision policy.	Survey / questionnaire. AMBER
Gonge and Buus 2015*	Denmark	"To test the effects of a meta-supervision intervention in terms of participation, effectiveness and benefits of clinical supervision of psychiatric nursing staff"	RCT. GREEN
Hall and Cox 2009*	UK	"to investigate the experiences of physiotherapists engaged in clinical supervision..and to indicate whether physiotherapists understood the purpose of clinical supervision and whether the term affected their understanding and use of the process"	Qualitative. RED
Heaven et al. 2006*	UK	"Communication skills learned in the training environment are not always transferred back into the clinical setting. Study investigated the potential of clinical supervision in enhancing the transfer process". Hypothesis: "That nurses who have received clinical supervision after training will show more evidence of transfer of newly acquired communication skills to real patient encounters, than those who have not."	RCT. AMBER
Herbert and Trusty 2006*	USA	"To gain a more complete understanding of current practices within the public vocational rehabilitation system"	Survey / questionnaire. RED
Jarrett and Barlow 2014*	UK	"aimed to explore the perceptions of home visitors of fortnightly clinical supervision sessions in enabling them to work effectively with families with complex needs"	Mixed methods. RED
Kenny and Allenby 2013*	Australia	"The aim of the study was to develop a clinical supervision programme to support nurses in rural hospitals and to explore their experiences in the programme."	Qualitative. RED
Koivu et al. 2012*	Finland	"The aims of this study were (1) to identify which nurses benefitted most from clinical supervision and (2) to explore whether they were healthier and more satisfied with their work than their peers who did not attend clinical supervision."	Survey / questionnaire. RED
Kuipers et al. 2013*	Australia	Do structured arrangements for multidisciplinary peer group supervision make a difference for allied health professional outcomes?	Survey / questionnaire. RED
Livni et al. 2012*	UK	"To assess how supervision structure and process affect supervision outcomes for the supervisee". "It was hypothesized that: (1) there would be significant benefits of AOD staff involvement in individual or group based supervision in terms of increases in wellbeing and job satisfaction and	Cohort study. AMBER

		reductions in burnout compared to levels pre supervision; (2) time spent in supervision would correlate positively with wellbeing, job satisfaction, perceived supervisory alliance, perceived supervision effectiveness, and negatively with burnout; (3) supervisory alliance (and cohesion in group supervision) would correlate positively with wellbeing, job satisfaction and perceived supervision effectiveness, and negatively with burnout; (4) alliance in individual supervision would be a stronger predictor of supervision outcomes than alliance in group supervision, but group cohesion would have similar predictive capacity in group supervision, and (5) evaluations of perceived effectiveness of individual supervision would be better than evaluations of group supervision"	
Long et al. 2014*	UK	"a survey of registered nurses and health care assistants within a secure women's service was undertaken to examine the: (1) Perceived benefits of clinical supervision; (2) Best practice elements of clinical supervision including: partnership and respect for the use of a supervision contract; use of Proctor's model; the availability of supervision; opportunities to reflect on work related issues and training in supervision and (3) Practical aspects of clinical supervision including meeting standards, meeting learning needs, issues in supervision and how to improve the practice of clinical supervision"	Survey / questionnaire. RED
Lynch and Happell 2008a* Lynch and Happell 2008b Lynch and Happell 2008c Lynch et al. 2008	Australia	"Part 1. to explore and evaluate ways of implementing clinical supervision as undertaken in a rural health-care organization; Part 2 describes stages 3–5, including: the strategic plan; implementing the strategic plan; and reflecting on the past and moving forward. Part 3 "presents a new model of implementation with interrelated and dynamic stages"	Qualitative. RED
McKenna et al. 2010*	New Zealand	Aimed to generate information on the number of nurses receiving professional supervision, the number of trained supervisors and their credentials, and the models of professional supervision currently being used. The research also investigated ways of improving professional supervision, the place of service user and cultural input into the supervision programmes, and the plausibility of developing a standardised national approach for professional supervision and the training of supervisors."	Survey / questionnaire. RED
Milne 2010*	UK	to evaluate participants' reactions to the supervisor training workshop, and to assess whether consultancy added anything to the provision of the manual alone	RCT. RED
O'Connell et al. 2011*	Australia	"study explored the feasibility of implementing and evaluating ward-based team clinical supervision for general nurses"	Mixed methods. AMBER
Rice et al. 2007*	Northern Ireland	"to explore ways to make clinical supervision available to all mental health nurses and in doing so to evaluate and improve their contribution to patient care"	Survey / questionnaire. RED

Taylor et al. 2009*	Scotland	"describes how a mental health team in a remote rural landscape benefited from restructuring its clinical supervision team."	Case report / study. RED
Turner and Hill 2011a* Hill and Turner 2011 Turner and Hill 2011b	UK	"1. To evaluate the implementation of Proctor's (1987) model of clinical supervision. 2. To test a number of hypotheses based on this: a. That clinical supervision is valued as a process in dealing with Proctor's three areas of Formative, Normative and Restorative. b. That Restorative aspects may be the primary need of acute mental health nurses from clinical supervision. That using documentation of the clinical supervision sessions facilitates continuity of clinical supervision"	Mixed methods. AMBER
Turner et al. 2005*	UK	"the purpose of this paper is to demonstrate how clinical supervision can be easily facilitated and discuss the development journey…"	Survey / questionnaire. RED
White & Winstanley 2010a* White & Winstanley 2009a White & Winstanley 2009b White & Winstanley 2009c White & Winstanley 2010b White & Winstanley 2010c White & Winstanley 2010d	Australia	"to conduct a randomised controlled trial (RCT) of clinical supervision provided to a sample of nurses working in mental health settings."	RCT. AMBER
White 2008*	Australia	"…to examine existing models of [child protection] supervision and then establish an alternative, more effective model…"	Survey / questionnaire. RED

* Primary study reference; $ - judgement of comprehensiveness of reporting of clinical supervision intervention; RCT – randomised controlled trial

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